

WASHINGTON WATER POWER
Clark Fork River
Noxon Rapids Hydroelectric Development,
Slacking Tower
Sanders County *< Noxon Vicinity*
Montana

HAER No. MT-105-B

HAER
MONT
45-NOX.V,
1B-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Columbia Cascades Support Office
National Park Service
909 First Avenue
Seattle, Washington 98104-1060

**HISTORIC AMERICAN ENGINEERING RECORD
WASHINGTON WATER POWER CLARK FORK RIVER
NOXON RAPIDS HYDROELECTRIC DEVELOPMENT,
SLACKING TOWER
HAER NO. MT-105-B**

HAER
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Location: The south bank of the Clark Fork River 1,000 feet downstream of the Noxon Rapids Powerhouse at Noxon Rapids, Sanders County, Montana, 18.5 miles upstream of the Montana-Idaho state line.

*v Noxon
vicinity*

Date of
Construction: 1959

Engineer: Sauerman Brothers. Incorporated

Builder: Morrison-Knudsen Company

Present Owner: Avista Corporation

Present Occupant: Avista Corporation

Present Use: Not in operation.

Significance: The Noxon Rapids Slacking Tower is locally important because of its influence, along with the associated Noxon Rapids Hydroelectric Development, on the local environment, landscape and economy. It was integral to the maintenance of the Noxon Rapids tailrace prior to the installation of the slack line cableway. The tower is also important in the history of the Washington Water Power Company, now Avista Corporation. The slacking tower represents late 1950s state of the art technology, now obsolete and soon to be replaced and upgraded with 1990s technology. The slacking tower, in association with the powerhouse, was recommended eligible for inclusion in the National Register of Historic Places in 1998.

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I. SLACKING TOWER

The Noxon Slacking Tower is located along the south bank of the Clark Fork River 1,000' downstream of the Noxon Rapids Powerhouse. The slacking tower was designed by Sauerman Brothers Incorporated in 1945 and was purchased through the field office of Ebasco Services Incorporated.

The slacking tower rises 122' 11" high and is 5' wide at its widest point. The tower mast is a guy-supported steel lattice structure on a ball and socket casting attached to a single pedestal concrete foundation. The tower has riveted steel girders with 23 crossbuck bracing sections. A steel ladder is attached to the north side of the tower and extends from the base of the tower to a platform near the top of the tower. The tower is topped with a block and tackle pulley system and five support cables that are attached to the summit of the tower. The mast was designed to be supported by three 1 3/4" main guys and two 1" auxiliary guys.

The erection of the tower and the slackline cableway began on October 10, 1959 by Morrison-Knudsen Company and was completed on November 11, 1959. The tower was constructed for the purpose of dredging the tailrace, which began on December 4, 1959. A bucket was probably attached to control cables for dredging and the system was most likely operated from a winch shack located approximately 200' southwest of the tower. The slackline may have also been used by Morrison-Knudsen Company for the concreting of walls on the dam.

The Washington Water Power Company assumed operation of the slackline cableway on February 19, 1960. In either 1961 or 1962 the slackline cableway was used to remove debris from the tailrace. The structure has not been operated since the early 1960s.

A dredging cable broke in 1998 from fatigue or rust. That same year, the slackline cableway and bucket were removed from the river and disconnected from the dam. The cable from the tower to the winch house was also disconnected at the winch. The cableway is still attached to the tower mast guide blocks, but no longer loads the tower laterally. There are several references in the final construction report to winches and motor cranes, though none of these references can be positively identified as reference to the slacking tower. There is no question, however, that the slacking tower is a contributing element of Site 24SA450, the Noxon Rapids Hydroelectric Development Historic District. The tower has become structurally unstable over

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the past forty years since its construction and currently poses a safety hazard. The tower is, therefore, scheduled to be removed. See photographs MT-105-B-1 and MT-105-B-2.

III. SOURCES

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